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ABSTRACT

This paper discusses the memory abilities of children during the preschool and elementary school years, and states that successful remembering does not come naturally to children. Techniques parents and teachers can use to help children improve recall memory skills are described. Differences between recognition memory and recall memory are discussed and it is suggested that the forgetfulness of young children is due to their inability to recall rather than to their failure to recognize. Children's recall failures are attributed to their lack of planning and preparation for memory. Signs of memory planfulness are said to appear by age 7 or 8, and these signs are reinforced by school related expectations and demands. Requiring children to sort materials into appropriate groupings and ask meaningful questions about the things they study are cited as ways to improve children's recall memory. (CS)

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Children Have to Learn to Remember Successfully

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Children Have to Learn to Remember Successfully

Successful remembering does not come naturally to young children. Youngsters are devoted first and foremost to exploring and enjoying the things around them, not to making records of their experiences for later reference.

A chronic source of frustration for all but the most super-human of teachers is the difficulty that preschoolers and young school-age children have in remembering what we want them to. They don't mean to forget. And they go to great lengths to convince us that remembering happens to be easy for them and that we can rest assured of their success the following day. Nevertheless, they are champion forgetters for reasons that are now becoming clear as we continue to study memory development during the preschool and elementary-school years.

Types of Memory Abilities

Many of the parents I speak with are quick to comment that their youngsters sometimes remember things that even they, the parents, have long forgotten. These observations are quite correct and require us to be very specific when we think about the types of memory skills our children do and do not have.

On the one hand, the young child has a very well developed recognition memory. He has a keen ability to recognize things he has seen or heard before when he encounters them again. Several years ago I asked parents to help their three- and four-year-olds learn and remember the

names of a set of pictures. Each picture showed an animal or object that the children were familiar with, one that could be found around the house. The session lasted only six or seven minutes, after which the parent and child were asked to work on another activity. About six months later I returned to the children with twice as many pictures. Half were those they had seen with their parents. The other half were new, although they, too, depicted familiar household objects and animals. I showed the children two pictures at a time, one old one and one new one, and asked them to point to the one they had seen before. Even three-year-olds were better than 90 percent correct in recognizing the old pictures over this six-month period. This is not unusual. Recent research investigations show that four- and five-year-olds have excellent, almost adult-like memory skills (see Brown & Scott, 1971; Corsini, Jacobus & Leonard, 1969) and that these skills begin to appear as early as the first year of infancy (Fagan, 1972).

In contrast, the young child has a poor recall memory relative to older children and adults. When we ask four- and five-year-olds to study a set of 15 or 20 pictures so that they will be able to recall the names of the things they see later from memory, typically they are only able to recall five or six items. Older elementary-school children recall nearly twice as many pictures, and adults recall nearly all of them. Thus, our concerns over the forgetfulness of young children almost always center on their inabilities to recall, rather than failures to recognize.

The Cause of Children's Recall Failures

So, what is the matter with the young child's recall memory? The answer becomes clear when we consider what we, as adults, do to prepare ourselves for examinations, job interviews, speeches, and so on. Some of us use study opportunities to verbally rehearse the things we want to remember. We repeat the names or facts over and over until confident that that they will come to us later when we need them. Others spend study opportunities putting the names or facts into groups, since most find that recall comes easier when things fall into groups than we we have to remember things individually. In preparing for an American History examination, for example, we might form groups of war heroes, leaders of social revolutions, inventors, and industrial tycoons, and so on. Or in trying to memorize what we have learned about children's development, we might separate the facts according to children's ages (e.g., characteristics of infants, preschoolers, etc.), or group them on the basis of personality characteristics, social characteristics, and so on. The specifics of these strategies are not important here. What is important about the examples is that older children and adults are purposeful and planful about the task of memorizing. We know that recall is difficult and not an automatic outcome of learning. We have to prepare for recall by thinking of "tricks" and strategies that will help us later.

Young children, on the other hand, are not so deliberate in preparing for successful memory, at least not in the very effective ways that we are.

Rarely do they verbally rehearse or make groups of their learning materials to help memory. In fact, there is one recent study which shows that when the young child is given the opportunity to study pictures, and told beforehand that he will have to recall them from memory when they are taken away afterward, his later recall of these materials is no better than if we had simply told him to "look at" the pictures without even mentioning the ensuing memory task (Appel, Cooper, McCarrell, Sims-Knight, Yussen, & Flavell, 1972). In other words, the young child does little to prepare for memory, and it is probably for this reason, rather than due to any built-in limitations or deficiencies of his memory system, itself, that he shows such poor recall.

When and Why Do Children Begin to Show Planful Memory Behaviors?

Thinking ahead about memory and using planful study skills to improve memory does not come naturally to children. As Stone and Church (1973) point out, youngsters are devoted first and foremost to exploring and enjoying the things around them, not to making records of their experiences for later reference. Moreover, the preparation that goes into memorizing has no immediate reward, and since young children are less concerned with being efficient and accurate in their task behavior, and more intrigued with the novelties and enjoyment of performing the tasks, they are not apt to spend time thinking of ways to improve their learning and memory achievements.

Yet, by seven or eight years of age, children do begin to show signs of memory planfulness by using strategies such as verbal rehearsal and

grouping strategies. No one is sure why the transition occurs during this age period. However, some child-watchers believe that it stems from an accumulation of experiences encountered during the first several years of formal schooling. Demands for successful retention, as a rule, are more frequent and more rigorous in the classrooms than in home environments. Parents have a way of identifying and sympathizing with the forgetfulness of their children. While they encourage youngsters to remember selected experiences, few actually demand retention of factual information. Classroom teachers, on the other hand, are responsible for day-to-day gains in pupil achievement. That children retain today's knowledge to understand tomorrow's lesson is essential for pupil progress. As the information load increases from grade to grade, successful retention becomes increasingly important. Thus, teachers come to expect better memorization and encourage pupils to take their memorization experiences seriously. Moreover, pupils in school learn that they will be tested for the materials they encounter, thereby upping the incentive for deliberate and planful memorization behavior.

It is believed that these school-related expectations and demands force children to realize the importance of planfulness and deliberate study behaviors for successful memory. The result is that by the time they reach third grade, many have learned to take steps on their own initiative to insure successful recall. In other words, they have learned what it takes to remember successfully. This process of memory education appears to be a slow one, requireing that teachers maintain rigorous demands for successful remembering for a rather long period of time. Teachers might be

relieved to know that researchers have not been able to train children to use adult-like memory strategies at their own direction in one or two concentrated sessions (Moely & Jeffrey, 1974).

Ways to Better the Recall of Young Children

Lest these comments suggest an overly pessimistic picture of the young child's recall ability, it is important to make a distinction between what youngsters fail to do for the betterment of memory when left to their own devices, and what they can do to achieve successful retention under the direction of a parent or teacher. Professor John H. Flavell (1977) in his discussion of children's memory provides the clearest account of this distinction. There is ample evidence that the young child can be an effective memorizer if we can somehow have him study his materials conscientiously and make use of memory strategies similar to those that we use. In other words, if teachers want good retention from their young pupils, they must devise ways to insure that pupils approach their learning materials deliberately.

One technique that we have used very successfully in laboratory studies is to require the child to sort his materials into meaningful groupings before he has to recall them for a test. Recent studies by Lange and Griffith (1977) and Lange and Jackson (1974) show that kindergarteners and first-graders nearly double their recall achievements after having sorted the same materials. There are several reasons for this. To make meaningful groups, children have to think about and analyze carefully the meanings of the things they see. This requires attention and concentration over

and above that which the child might devote to his study ordinarily. Another advantage is that sorts provide a structure for the child to think back to as he tries to remember. If he can think of the groups he made, he has a better chance of thinking of the items that he put in those groups. Short of sorting, teachers can ask children simply to think of ways that the materials can "go with another."

There are several other techniques which would seem to be effective and more practical in some situations than sorting. One is to have children ask meaningful questions about the things they study. As in sorting, thoughtful questions require concentrated attention and in many cases induce the child to relate the new information to his own personal experiences, an activity which is believed to be beneficial for retention. Asking the child to tell others, perhaps other pupils, what some of his new information "makes him think of" serves the same function and may require less supervision. Through each of these techniques, children not only enrich the meanings of the things they encounter, but also become active and presumably more motivated participants in the learning and memorization process.

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